

REMARKS

In view of the above-amendments and the following remarks, reconsideration and further examination are requested.

Various editorial amendments have been made to the specification and abstract. No new matter has been added. A substitute abstract along with a marked-up copy of the substitute abstract are enclosed herewith.

In item 1 on page 2 of the Office Action, Figure 1 was objected to for not being labeled "Prior Art." A replacement Figure 1 including the label "Prior Art" is filed herewith.

In item 2, claim 8 was objected to as lacking antecedent basis for the language "the arithmetic operation unit." Claim 8 has been amended to change "unit" to the correct "resource."

In item 4, claim 12 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner asserts that "steps" cannot be used in a computed program claim, and that the claim is indefinite in that it makes it unclear whether the claim is directed to a method or a program. Claim 12 has been amended to clarify that a program is being recited by changing the language "the program comprising" to "the program causing the image display control apparatus to execute." In essence, programs are methods to be implemented by a computer. There is no requirement in the patent statutes, rules, case law, or MPEP that "steps" be avoided in program claims. Moreover, claim 12 is not indefinite as to whether a program or method is being claimed; the claim is clearly and explicitly directed to a program. Accordingly, claim 12 is in compliance with U.S.C. § 112, second paragraph.

Claim 12 was also rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claim 12 has been amended to recite that the program is "embodied on a computer-readable medium" according to current USPTO practice. Therefore, claim 12 is directed to statutory subject matter (see MPEP 2106).

Claims 1, 10, 12, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Motoyama (JP 11-06531) in view of Cui (US 2003/0001815). This

rejection is traversed and is believed to be inapplicable to claim 1, 10, 12, and 13 as amended.

Claims 1, 10, 12, and 13 have each been amended to clarify the previous recitations of assigning the arithmetic operation resource “exclusively” to the image state detection unit and the image signal transformation unit respectively at predetermined timings. Thus, claims 1, 10, 12, and 13 have been amended to each include a recitation directed to the feature of assigning an arithmetic operation resource, which performs an arithmetic operation, to an image state detection unit, instead of to an image signal transformation unit at a predetermined time during which the image state detection unit is to use the arithmetic operation resource, and assigning the arithmetic operation resource to the image signal transformation unit, instead of to the image state detection unit, at a predetermined time during which the image signal transformation unit is to use the arithmetic operation resource. The prior art of record, alone or in combination, does not disclose or suggest such a feature.

The Examiner acknowledges that the primary reference Motoyama fails to teach a resource control unit operable to assign an arithmetic operation resource exclusively to the image state detection unit and the image signal transformation unit respectively at predetermined timings. Thus, the Examiner relies on the secondary reference Cui.

Cui illustrates, in Fig. 5, that a unit 550, including image brightness indicators, communicates with the software program 555. Cui discloses that the unit 550 samples the display image and accumulates information (see [0035]). Cui also discloses that the brightness information accumulated from the brightness indicators is continually compared to threshold levels, and if the brightness level exceeds or falls below the threshold by a certain amount this information is relayed to the software program, which determines whether the display image brightness or backlight should be adjusted (see [0037]). Therefore, in the system of Cui, the unit 550 samples and accumulates brightness information, compares the information to thresholds, and if necessary relays information to the software program, which makes determinations about image brightness or backlight based on the information. The Examiner apparently equates the unit 550 of Cui to the image state detection unit of the present invention, and the software program of Cui to the image signal transformation unit.

However, there is no suggestion that an arithmetic operation resource in the system of Cui is assigned to the unit 550, instead of to the software program, at a predetermined time during which the unit 550 is to use the arithmetic operation resource, and that the arithmetic operation resource is assigned to the software program, instead of to the unit 550, at a predetermined time during which the software program is to use the arithmetic resource. Therefore, it cannot logically be asserted that Cui discloses or suggests assigning an arithmetic operation resource to an image state detection unit, instead of to an image signal transformation unit, at a predetermined time during which the image state detection unit is to use the arithmetic operation resource, and assigning the arithmetic operation resource is assigned to the image signal transformation unit, instead of to the image state detection unit, at a predetermined time during which the image signal transformation unit is to use the arithmetic resource, as recited in claims 1, 10, 12, and 13 of the present application.


Accordingly, no obvious combination of the systems of Motoyama and Cui would result in the inventions recited in claims 1, 10, 12, and 13. Therefore, the inventions recited in claims 1-13 would not have been obvious to a person having ordinary skill in the art at the time the present invention was made.

Claims 2-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Motoyama in view of Cui and Herrmann. The Examiner relies on Herrmann as teaching a color space transformation unit. However, Herrmann does not teach, is not relied on as teaching, assigning of an arithmetic operation resource, which is absent from Motoyama and Cui as discussed in detail above. Therefore, claims 2-5 would not have been obvious to a person having ordinary skill in the art in view of Motoyama, Cui, and Herrmann.

Because of the distinctions discussed above, it is submitted that claims 1-13 are allowable over the prior art of record and that the present application is in condition for allowance.

Respectfully submitted,

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ABSTRACT OF THE DISCLOSURE

An image display control apparatus ~~103~~ having a small-size circuit includes: an image state detection unit ~~120~~ for detecting a state of an image based on an image signal using a resource subunit ~~610~~ in a resource unit ~~132~~; an image signal transformation unit ~~140~~ for transforming the image signal, using the resource subunit ~~610~~ in the resource unit ~~132~~, based on the state of the image detected by the image state detection unit ~~120~~; and a resource control unit ~~131~~ for assigning the resource subunit ~~610~~ in the resource unit ~~132~~ to each of the image state detection unit ~~120~~ and the image signal transformation unit ~~140~~ according to a count number of cycles of an operation clock outputted from a clock unit ~~135~~.